

Specimen for 2007

International General Certificate of Secondary Education

MARK SCHEME

MAXIMUM MARK: 50

SYLLABUS/COMPONENT: 0445/01, 0446/01

DESIGN AND TECHNOLOGY
DESIGN AND COMMUNICATION

Design



UNIVERSITY of CAMBRIDGE
International Examinations

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1 a	Accept any suitable points - stable in use, lightweight, easy to transport, quick to assemble/fold etc.	1 x 4	4
b	Accept drawings of any suitable mechanisms – screws, bolts/nuts, rivets, spindles, slots, notches etc.	2 x 2	4
c	Any suitable ideas.		
	Communication		
	Simple drawings displaying a low standard or limited range of techniques	0-2	
	Clear drawings displaying a good standard and a range of techniques - shading/colour/annotation, etc.	3-4	
	High quality drawings using a wide range of techniques with clear annotation and detail	5-6	
	Suitability		
	Simplistic designs showing outlines only	0-2	
	Rather more detail, sensible solutions that could work	3-4	
	Accurate solutions, good fitness for purpose, detailed construction	5-6	12
d	Evaluation of each of the ideas. At least 3 evaluations up to 2 marks each Selection and justification. (1 + 1)	0-6 2	8
e	Quality of drawing		
	Poor line quality, proportions, little detail	1	
	Good line work, use of colour, proportions, some detail	2-3	
	High standard throughout with a range of techniques that show clearly all detail	4	
	Dimensions Overall dimensions only - 1 Additional dimensions - 2	2	
	Construction details		
	A simplistic approach showing little or no detail of construction to be used	0-2	
	Most constructional detail may be obvious from overall views or with some annotation	3-4	
	All constructional detail will be clear with good annotation and additional detail drawings as necessary	5-6	12
f	Suitable materials stated. Appropriate reasons for choice.	2 2	4
g	Suitable method stated. Good detailed description of process, including processes (3) and tools (2).	1 5	6
			50

2	a Accept any suitable points - secure, weather, easy to carry, lightweight, easy access, protects contents etc.	1 x 4	4
	b Accept names and drawings of any suitable drawing equipment. (1+1) x 2	2 x 2	4
	c Any suitable ideas.		
	Communication		
	Simple drawings displaying a low standard or limited range of techniques	0-2	
	Clear drawings displaying a good standard and a range of techniques - shading/colour/annotation, etc.	3-4	
	High quality drawings using a wide range of techniques with clear annotation and detail	5-6	
	Suitability		
	Simplistic designs showing outlines only	0-2	
	Rather more detail, sensible solutions that could work	3-4	
	Accurate solutions, good fitness for purpose, detailed construction	5-6	12
d	Evaluation of each of the ideas. At least three evaluations up to 2 marks each	0-6	
	Selection and justification (1 + 1)	2	8
e	Quality of drawing		
	Poor line quality, proportions, little detail	1	
	Good line work, use of colour, proportions, some detail	2-3	
	High standard throughout with a range of techniques that show clearly all detail	4	
		2	
	Dimensions Overall dimensions only - 1 Additional dimensions - 2		
		0-2	
	Construction details	3-4	
	A simplistic approach showing little or no detail of construction to be used	5-6	12
	Most constructional detail may be obvious from overall views or with some annotation		
	All constructional detail will be clear with good annotation and additional detail drawings as necessary		
f	Suitable materials stated.	2	
	Appropriate reasons for choice.	2	4
g	Appropriate logo	3	
	Good communication skills	2	
	Appropriate attachment method	1	6
			50

3	a	Accept any suitable points - weather, firm fixing, little maintenance, transportable etc.	1 x 4	4
	b	Accept any suitable methods - battery, clockwork, wind, solar powered etc.	1 x 4	4
	c	Any suitable ideas.		
		Communication		
		Simple drawings displaying a low standard or limited range of techniques	0-2	
		Clear drawings displaying a good standard and a range of techniques - shading/colour/annotation, etc.	3-4	
		High quality drawings using a wide range of techniques with clear annotation and detail	5-6	
		Suitability		
		Simplistic designs showing outlines only	0-2	
		Rather more detail, sensible solutions that could work	3-4	
		Accurate solutions, good fitness for purpose, detailed construction	5-6	12
	d	Evaluation of each of the ideas. At least three evaluations up to 2 marks each	0-6	
		Selection and justification (1 + 1)	2	8
	e	Quality of drawing		
		Poor line quality, proportions, little detail	1	
		Good line work, use of colour, proportions, some detail	2-3	
		High standard throughout with a range of techniques that show clearly all detail	4	
			2	
		Dimensions Overall dimensions only - 1		
		Additional dimensions - 2		
			0-2	
		Construction details	3-4	
		A simplistic approach showing little or no detail of construction to be used	5-6	12
		Most constructional detail may be obvious from overall views or with some annotation		
		All constructional detail will be clear with good annotation and additional detail drawings as necessary		
	f	Suitable materials stated.	2	
		Appropriate reasons for choice.	2	4
	g	Suitable method stated.	1	
		Good detailed description of process, including processes (3) and tools (2).	5	6
				50